

**FINAL**  
**SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN**  
**AND**  
**INSTALLATION SPILL CONTINGENCY PLAN**  
  
**CANYON LAKE RECREATION**

Prepared for

**U.S. ARMY CORPS OF ENGINEERS**  
TULSA DISTRICT

Prepared by

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February 2003

**PLAN CERTIFICATION**

I hereby certify that I have examined the facility and, being familiar with the provisions of 40 *Code of Federal Regulations* (CFR) Part 112, attest that this Spill Prevention Control and Countermeasures Plan (SPCCP) has been prepared in accordance with good engineering practices.

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**Printed Name of P.E.**

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**Registration Number**

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**Signature of P.E.**

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**Date**

## MANAGEMENT APPROVAL

The following plan meets the requirements of the Spill Prevention Control and Countermeasure Plan regulations under 40 CFR Part 112, has full approval of management, under the authority shown on the letter following this page, and will be implemented as herein described.

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**Garrison Commander**

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**Signature**

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**Date**

<b>Regulatory Guidance - 40 Code of Federal Regulations (CFR)</b>		<b>Corresponding Section in Fort Sam Houston SPCCP</b>
<b>FINAL RULE</b>	<b>Sequence Outline for SPCCP</b>	
112.1	Completely buried storage tanks; wastewater treatment	Section 5.2.2, Appendix C
112.3	PE certification; plan @ facility and available for review	Section 1.1, Section 1.2
112.4	Spill history	Section 7.0
112.5	Amendments to plan; review of plan every 5 years	Section 1.2
§ 112.7	General requirements for SPCC Plans for all facilities and all oil types.	Cross Reference Table
§ 112.7(a)	General requirements; discussions of facility's conformance with rule requirements; deviations from Plan requirements; facility characteristics that must be described in the Plan; spill reporting information in the Plan; emergency procedures.	Section 1.1, Section 1.2, Section 2.1, Section 2.2, and Section 2.3
§ 112.7(b)	Fault analysis	Section 3.3, Section 3.4, Exhibit 5-1, Figure 3-2, and Figure 3-3
§ 112.7(c)	Secondary containment	Section 5.0
§ 112.7(d)	Contingency planning	Section 4.0, Section 6.1.1, and Section 6.1.2. Section 3.0, Section 4.0 and Section 5.0 of ISCP
§ 112.7(e)	Inspections, tests, and records	Section 6.1 and Section 6.3
§ 112.7(f)	Employee training and discharge prevention procedures	Section 6.2
§ 112.7(g)	Security (excluding oil production facilities)	Appendix C in Facility Specific Plans
§ 112.7(h)	Loading/unloading (excluding offshore facilities)	Section 5.4

§ 112.7(i)	Brittle fracture evaluation requirements	Section 6.1
§ 112.7(j)	Conformance with State requirements	Section 2.2 and Section 2.3
§ 112.8 § 112.12	Requirements for onshore facilities (excluding production facilities).	
§ 112.8(a), § 112.12(a)	General and specific requirements	Cross Reference Table
§ 112.8(b), § 112.12(b)	Facility drainage	Section 3.3, Section 3.4, Section 3.5, and Figure 3-3
§ 112.8(c), § 112.12(c)	Bulk storage containers	Section 5.0, Section 5.2, Exhibit 6-1, Exhibit 6-2, and Exhibit 6-3

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Appendix C – Facility Specific Information (Identifies potential spill sites at FSH that include storage of oil and hazardous substances as required by SPCCP and notification procedures as required by ISCP)

Appendix D – Record of Inspections

Appendix E – Record of Training

Appendix F – Record of Spills

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**LIST OF ACRONYMS AND ABBREVIATIONS**

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AAFES	Army and Air Force Exchange Service
AMED	Army MedCom
AR	Army Regulation
AST	aboveground storage tank
BAMC	Brooke Army Medical Center
BFE-C	Business Center of Fire and Environment-Compliance
CABC	Directorate of Community Activities Business Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHEMTREC	Chemical transportation Emergency Center
CLRA	Canyon Lake Recreation Area
CWA	Clean Water Act
DOD	Department of Defense
DPS/PMO	Department of Public Safety
DSEF	Directorate of Safety, Environment, and Fire
EHS	Extremely hazardous substances
EO	Executive Order
EPA	United States Environmental Protection Agency
ETIS	Environmental Technical Information System
FFCA	Federal Facilities Compliance Act
FSH	Fort Sam Houston
HAZMAT	hazardous material
HAZWOPER	Hazardous Waste Operations
HS	hazardous substance
HVAC	Heating, Ventilating, and Air Conditioning
HW	hazardous waste
IC	Incident Commander
IIRT	Initial Installation Response Team
IOSC	Installation On-Scene Commander

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**LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)**

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IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan
LEPC	Local Emergency Planning Committee
MOGAS	Motor Gasoline
MSL	Mean Sea Level
NCP	National Contingency Plan
NIOSH	National Institute for Occupational Safety and Health
NRC	National Response Center
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System
OPA	Oil Pollution Act
OPP	Oil Pollution Plan
OSHA	Occupational Safety and Health Act
PCB	Polychlorinated Biphenyls
PE	Professional Engineer
POL	petroleum, oil, or lubricant
PPE	personal protective equipment
PWBC	Directorate of Public Works Business Center
RCRA	Resource Conservation and Recovery Act
RLBC	Directorate of Readiness and Logistic Center
RQ	reportable quantity
RRC	Railroad Commission of Texas
RSC	Reserve Support Command
SARA	Superfund Amendments and Reauthorization Act
SAS	Satellite Accumulation Site
SCBA	Self Contained Breathing Apparatus
SCS	Soil Conservation Society
SERC	State Emergency Response Commission
SERO	Senior Emergency Response Officer
SJA	Staff Judge Advocate
SPCCP	Spill Prevention, Control, and Countermeasures Plan

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**LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)**

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SWRO	Southwest Regional Office
TAC	Texas Administrative Code
TCEQ	Texas Commission of Environmental Quality
TERC	Texas Emergency Response Center
U.S.C.	United States Code
USCG	United States Coast Guard
USDOD	U.S. Department of Defense
USGS	United States Geological Survey
UST	underground storage tank

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## DEFINITIONS

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**CERCLA** is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.

**CODE OF FEDERAL REGULATIONS (CFR)** is a compilation of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government of the United States of America. The CFR, which is compiled by the Office of the *Federal Register*, is divided into 50 titles, which cover broad areas subject to Federal regulation.

**CLEANUP OPERATION** per Occupational Safety and Health Act (OSHA) 29 CFR 1910.120 is an operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleaned up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

**DISCHARGE OR SPILL** is an act or omission by which oil, hazardous substances, or other substances in harmful quantities (see definition) are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in the State, or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run, or otherwise enter water in the state, whether done accidentally or intentionally. The term shall not include any discharge that is authorized by a permit issued pursuant to federal or state law. Discharge or spill also means threat of discharge or spill.

**EMERGENCY RESPONSE CORRESPONDING TO EMERGENCIES** per OSHA 29 CFR 1910.120, means a response effort by employees from outside the immediate release area or by other designated responders such as mutual-aid groups or area fire departments to an occurrence that results, or is likely to result, in an uncontrolled release of hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or

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## DEFINITIONS (CONT.)

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health hazard are not considered to be emergency responses (i.e., fire, explosion, or chemical exposure).

**ENVIRONMENT**, as defined by Section 101(8) of CERCLA, means the navigable waters of the United States and any other surface water, groundwater, drinking water supply, land surface, or subsurface strata or ambient air within the United States or under the jurisdiction of the United States.

**EXTREMELY HAZARDOUS SUBSTANCES (EHS)** are substances promulgated in 40 CFR 355, Appendix A and are listed in the consolidated chemical list in Appendix B, Oil Pollution Plan (OPP)/SPCC Facility Response Plan as Section 302 Chemicals.

**FUEL** is a flammable, combustible liquid of any kind, including but not limited to gasoline, JP-8, diesel, and naptha. Class I (Minor), Class II (Medium), and Class III (Major) fuel spills are defined as follows: Class I or Minor fuel spills involve an area less than 2 feet in any dimension and are not of a continuing nature. Class II or Medium fuel spills are larger than Class I spills and are less than 10 feet in any dimension, or not over 50 square feet in area, and are not of a continuing nature. Class III or Major fuel spills include spills that are over 10 feet in any one dimension, over 50 square feet in total area, or are of a continuing nature.

**HARMFUL QUANTITY** (as defined by Texas Commission on Environmental Quality (TCEQ) in the October 1988 State of Texas Oil and Hazardous Substances Spill Contingency Plan) is any quantity of a hazardous substance discharge or spill that is determined to be harmful to the environment, or public health or welfare, or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare, by the administrator of the U.S. Environmental Protection Agency (EPA) pursuant to federal law; and that quantity or concentration of a hazardous substance or other substance that is toxic, corrosive, ignitable, reactive, or oxygen demanding (biological or chemical) or that exhibits another factor or factors which the Executive Director of the TCEQ or his/her designee determines is causing or may cause pollution or harm to the environment or the public welfare. A harmful quantity of oil is 5



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## DEFINITIONS (CONT.)

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or more barrels (210 gallons) except where spilled into navigable waters of the State when any quantity is considered harmful.

**HAZARDOUS MATERIAL (HAZMAT)** include hazardous substances, petroleum products, natural/synthetic gas, acutely toxic chemicals, and other toxic chemicals.

**HAZMAT TEAM** is a team of firefighters trained and equipped in accordance with 29 CFR 1910.120(q) that has the lead responsibility to respond to chemical spills/releases and to contain spilled material. The team's primary responsibility is to safely contain the substance and spill area, identify the substance, and coordinate the spill/incident response.

**HAZARDOUS SUBSTANCE (HS)** is any substance designated as such by the Administrator of the EPA pursuant to CERCLA (40 CFR 302), regulated pursuant to Section 311 of the Clean Water Act (CWA), or designated as such by the TCEQ.

**HAZARDOUS WASTE (HW)** is any solid waste identified or listed as a hazardous waste by the Administrator of the EPA in 40 CFR 261, Subparts C and D. The characteristics of hazardous wastes are identified in 40 CFR 261 Subpart C and 40 CFR 261 Subpart D identifies those wastes listed as hazardous.

**HEALTH HAZARD PER OSHA 29 CFR 1910.120** is defined as a chemical, mixture of chemicals, or a pathogen for which statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that may cause acute or chronic health effects in exposed employees. The term "health hazard" includes chemicals that are carcinogens; toxic or highly toxic agents; reproductive toxins; irritants; corrosives; sensitizers; hepatotoxins; nephrotoxins; neurotoxins; agents that act on the hematopoietic system; and agents that damage the lungs, skin, eyes, or mucous membranes. A "health hazard" may also include stress due to external temperature extremes. Further definition of the terms used above can be found in Appendix A to 29 CFR 1910.1200.

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## DEFINITIONS (CONT.)

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**INSTALLATION ON-SCENE COMMANDER (IOSC)** is the person, usually the Directorate of Safety, Environment, and Fire (DSEF) or his designee, is responsible for directing and coordinating all logistical and administrative actions during an oil and/or HAZMAT release response. The IOSC shall be fully trained in accordance with 29 CFR 1910.120 (q).

**INSTALLATION RESPONSE TEAM (IRT)** serves as the regional body for planning and preparedness actions prior to a response action and for coordination and advice during such action. The IRT consists of regional representatives of the participating agencies and representatives of state governments (and local governments as agreed upon with the state).

**NATIONAL RESPONSE CENTER (NRC)** is the EPA central notification office for all reportable spills, as defined by federal regulations. The 24-hour telephone number is (800) 424-8802.

**OIL** is defined as oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. TCEQ policy states the reportable quantity for oil is 5 barrels (210 gallons) released to the land and any quantity that produces a sheen to water. Oil releases are classified as Minor, Medium, or Major according to the following definitions that do not reflect the degree hazard of the release. A Minor release is a discharge to navigable waters of the state of less than 1,000 gallons of oil. A Medium release is a discharge of 1,000 to 10,000 gallons of oil to navigable waters of the state. A Major discharge of more than 10,000 gallons of oil to navigable waters of the state.

**OIL POLLUTION ACT (OPA)** was established in 1990 establishing that the owner or operator of a facility from which oil is discharged (also known as the responsible Party) is liable for the costs associated with the containment or cleanup of the spill and any damages resulting from the spill.

**RELEASE**, as defined by Section 101(22) of CERCLA, is any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing

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## DEFINITIONS (CONT.)

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into the environment, but excludes (a) any release that results in exposure to persons solely within a workplace; (b) emissions from engine exhaust; (c) release of source, byproduct, or special nuclear material from a nuclear incident; (d) the normal application of fertilizer; and (e) activities authorized by TCEQ.

**REPORTABLE QUANTITY (RQ)**, as defined in 40 CFR 117.1(a) and codified in CERCLA, means the quantity of hazardous substance determined to be harmful by EPA. A discharge into the environment equal to or greater than the RQ must be reported to the NRC and other appropriate local, state, and federal agencies. RQs are provided in Appendix B.

**REPORTABLE SPILL** is a discharge or release into the environment that requires reporting to local, state and federal agencies based on the amount spilled (reportable quantity) and degree of danger or threat to the environment/public health. Public Works should notify appropriate local, state and federal agencies of all reportable spills. Notification should be coordinated with the Incident Commander (IC), IOSC, Staff Judge Advocate, and Public Affairs.

**SPILL.** See Discharge.

**TEXAS EMERGENCY RESPONSE CENTER (TERC)** is the central notification office in Texas for reports of any spill of a harmful quantity of oil and hazardous substance or other substances or of a release or threatened release. The 24-hour telephone number is (512) 463-7727 or (800) 832-8224. During duty hours, notification will be made to the TCEQ Region 13 Office at (210) 490-3096.

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## REFERENCES

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### Federal Laws and Regulations

- Rivers and Harbors Act of 1899, 33 United States Code (U.S.C.) § 401.
- National Environmental Policy Act of 1969, as amended, 42 U. S. C. §§ 4321 to 4370d.
- Federal Water Pollution Control Act as amended by the Clean Water Act of 1977, 33 U.S.C. §§ 1251 to 1387.
- Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 136 to 136y.
- Federal Oil Pollution Act, 33 U.S.C. §§ 2701 to 2761.
- Pollution Prevention Act, 42 U.S.C. §§ 13101 to 13109.
- Toxic Substances Control Act, 15 U.S.C. §§ 2601 to 2692.
- Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 to 6992k.
- Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 to 9675.
- Environmental Protection Agency, Polychlorinated Biphenyls (PCBs): Manufacturing Process, Distribution in Commerce, and Use Prohibitions, 40 CFR Part 761.65, Storage for Disposal.
- Environmental Protection Agency, Hazardous Waste Management System: General 40 CFR Part 260.
- Environmental Protection Agency, Identification and Listing of Hazardous Waste, 40 CFR Part 261.
- Environmental Protection Agency, Standards Applicable to Generators of Hazardous Waste, 40 CFR Part 262.
- Environmental Protection Agency, Designation, Reportable Quantities and Notification, 40 CFR Part 302.
- Environmental Protection Agency, Oil Pollution Prevention, 40 CFR Part 112.
- Environmental Protection Agency, National Oil and Hazardous Substance Pollution Contingency Plan, 40 CFR Part 300.
- Federal Facilities Compliance Act, dated 22 September 1992.

**State Laws**

- State of Texas, Oil and Hazardous Substance Spill Prevention and Control, *Texas Water Code* §§ 26.262 to 26.268.
- Texas Commission on Environmental Quality, Oil and Hazardous Substances, Title 30 *Texas Administration Code* (TAC) §§ 343.1 to 343.2.
- Texas Commission on Environmental Quality, Industrial Solid and Municipal Hazardous Waste, Title 30 TAC, §§ 335.1 to 335.569.
- Texas Commission on Environmental Quality, Underground and Aboveground Storage Tanks, Title 30 TAC, §§ 334.1 to 334.560.
- State of Texas, Solid Waste Disposal Act, Article 4477-7.

**Executive Order (EO)**

- EO 12088, Federal Compliance with Pollution Control Standards, 13 October 1978.
- EO 11514, Protection and Enhancement of Environmental Quality, 5 March 1970.
- EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Regulations, 4 August 1993.

**Department of Defense (DOD)**

- DOD Instruction 4120.14, Air and Water Pollution Control, 14 May 1971.
- DOD Directive 5030.41, Implementation of National Oil and Hazardous Substance Pollution Contingency Plan, 3 October 1972.
- DOD Directive 5100.50, Protection and Enhancement of Environmental Quality, 24 May 1973.

**Department of the Army**

- Army Regulation (AR) 200-1, Environmental Protection and Enhancement, 21 March 1997.
- AR 200-2, Environmental Effects of Army Actions, 23 April 1990.
- AR 420-47, Solid Waste Management, March 1994.
- AR 420-76, Installation Pest Management Plan, 24 September 1992.
- Regulatory Guidance for Fuel Tanker Trucks at Army Facilities, Draft-May 2001.

**Fort Sam Houston (FSH)**

- FSH 385-10, Safety & Occupational Health Program.

## **1. PLAN REVIEW AND UPDATE**

### **1.1 PLAN REVIEW**

This Spill Prevention, Control, and Countermeasures Plan (SPCCP) shall be reviewed every 5 years from the date of acceptance, in accordance with 40 CFR 112. Documentation of the review and evaluation must be available for review, if requested.

### **1.2 PLAN AMENDMENT**

In accordance with 40 CFR 112.5, the plan shall be amended if a more effective prevention and control technology is available and if such technology will significantly reduce the likelihood of release from the installation or if such technology has been field proven at the time of review. Subsequent revisions or additions to the SPCCP shall be made within 6 months of the review and certified by a Professional Engineer licensed in the State of Texas. Only those amendments that have not been superseded by more recent amendments shall be retained.

The SPCCP and Installation Spill Contingency Plan (ISCP) shall be reviewed and amended under any of the following circumstances:

- Applicable regulations are revised.
- The plan fails in an emergency.
- The list of emergency coordinators changes.
- The list of emergency equipment changes.

SPCCP and ISCP amendments shall be certified by a Texas Professional Engineer under any of the following circumstances:

- The installation changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, spills, or releases of oil, hazardous waste, or hazardous waste constituents or the installation changes the response necessary in an emergency.

- The EPA regional administrator or TCEQ finds that the plan does not meet regulatory requirements or that an amendment to this plan is necessary to prevent and contain releases from the installation.

The amendment shall be written within 6 months after a modification becomes operational.

A record of each revision should be documented on the form provided as Exhibit 1-1 and stored as Appendix A. Copies of any such revisions to the SPCCP and ISCP shall be supplied to the appropriate federal, state, and local authorities, as requested.

To make a revision to this plan, perform the following:

- Insert the new page(s).
- Remove the old page(s).
- Enter the revision on a copy of the Exhibit 1-1 and place in Appendix A.

**EXHIBIT 1-1  
RECORD OF REVISIONS**

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<b>Revision Number</b>	<b>Date</b>	<b>Comments</b>	<b>Signature and Organization of Individual Making Revision</b>



## **2. INTRODUCTION**

This SPCCP establishes procedures and guidance for the prevention, detection, and response to spills of oils or hazardous substances at the Canyon Lake Recreation Area (CLRA). The CLRA comes under the command of Fort Sam Houston. Additionally, an ISCP has been developed that specifies procedures when responding to releases, accidents, and spills involving oils or hazardous substances. A separate plan exists for Camp Bullis and Fort Sam Houston.

### **2.1 OVERALL MISSION**

The CLRA SPCCP is intended to provide preplanning to protect human health and life and to minimize environmental damage and mission impact in the event of a HAZMAT release. This plan (SPCCP/ISCP) provides guidance for discovering and reporting HAZMAT releases and establishes training requirements for personnel to contain, cleanup, and restore the environment after HAZMAT releases.

This plan fulfills the requirements as detailed in AR 200-1 for an SPCCP/ISCP. Additionally, this plan fulfills the requirements of the National Contingency Plan (NCP) requiring federal agencies to plan for emergency response to spills of oil and hazardous substances for which they are responsible. As mandated by AR 200-1, it is Army policy to provide for prompt, effective response to contain and cleanup spills that may occur. The plan establishes responsibilities, duties, procedures, and resources to be employed to contain, mitigate, and cleanup oil and hazardous substance spills at CLRA.

### **2.2 APPLICABILITY**

The plan is applicable to the following:

- The Canyon Lake Recreation Area installation.
- All active, semiactive, and Army Reserve units located on or utilizing the facilities at CLRA.
- National Guard units located on or utilizing CLRA.
- Contractors and lessees located on or utilizing CLRA.

- Any federal, state, regional, or local governmental or non-governmental agencies, and private or public agencies or organizations who utilize CLRA for any organized or individual actions, projects, or activities.

## **2.3 REGULATORY REQUIREMENTS**

Federal regulations in 40 CFR 112 provide guidelines for development of an SPCCP to address oil spills. This regulation establishes procedures, methods, and equipment to prevent discharge of oil from non-transportation-related facilities into surface waters. The Resource Conservation and Recovery Act (RCRA) Regulation 40 CFR 264.52, and AR 200-1 expand the scope of the SPCCP to incorporate hazardous waste, as defined in 40 CFR 261 and hazardous substances as defined in 40 CFR 302.3, respectively.

Under the Superfund Amendment and Reauthorization Act (SARA) Title III, Section 304, FSH shall provide immediate notification to the Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission (SERC) if there is a discharge or release of a harmful quantity of a hazardous substance (40 CFR 302.4) that exceeds the RQ for that substance. Appendix B contains a comprehensive list of compounds and hazardous wastes designated as hazardous substances under CERCLA. This list should be used to determine which spills must be reported within 24 hours, which is required if there is a release equal to or greater than the final RQ designated for each substance.

The Federal Facilities Compliance Act of 1992 (FFCA) waives the sovereign immunity of federal facilities, including U.S. Department of Defense (DOD) installations, with regard to enforcement actions taken by states and/or the EPA. FFCA mandates enforcement of RCRA and its implementing regulations governing hazardous waste management at federal facilities. FFCA requires annual facility inspections; provides for fines and administrative orders against federal facilities; and, although it protects government employees from civil penalties, allows prosecution of government employees for violation of federal and state hazardous waste laws.

A discharge or spill is defined by 30 TAC327.2(3) as "an act or omission by which oil, hazardous substances or other substances in harmful quantities are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in the State of Texas or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run or otherwise enter water

in the State of Texas. The term 'discharge or spill' shall not include any discharge that is authorized by a permit issued pursuant to federal law or any law of the State of Texas or that is regulated, with the exception of transportation spills and spills in coastal waters, by the Railroad Commission of Texas (RRC)."

An indoor spill of oil onto the floor is not considered a spill "into the environment" provided that the spill is wholly contained indoors. However, if a portion of the spilled substance enters the environment, such as by seeping into the ground or spilling into the storm sewer system, it is considered a release into the environment; if it were released in a quantity greater than the reportable quantity or in a harmful quantity for that substance, the release shall be reported to the appropriate authorities as discussed below. Spills or leaks of nonvolatile liquids or solids onto impervious surfaces, or into secondary containment areas, do not require implementation of this plan. However, discharges of slug flows of oil or hazardous substances into a municipal sewer will result in endangerment or release to the environment and, therefore, require implementation of this plan.

According to the Texas Oil and Hazardous Spill Prevention and Control Act, Subchapter G, Chapter 26, *Texas Water Code*, a discharge or spill of harmful quantities means, "any quantity of hazardous substance discharge or spill which is determined to be harmful to the environment or public health or welfare, or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare by the Administrator of the EPA pursuant to federal law and by the executive director."

According to 40 CFR 110 (EPA regulations regarding the discharge of oil) and the Federal Water Pollution Control Act, Section 311(b), discharges are defined as any discharge of oil into or on the navigable waters, waters of the contiguous zone, in and waters seaward of the contiguous zone in such quantities that violate applicable water quality standards, or cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

TCEQ further stipulates (in Title 30 of the TAC, Section 334.75 and 334.129) that owners and operators of aboveground or underground storage tanks shall report within 24 hours, a spill and overflow of oil that results in a release to the environment exceeding 25 gallons, or that causes a

sheen on surface water. A spill of less than 25 gallons that cannot be cleaned up within 24 hours shall also be reported.

### **3. ENVIRONMENTAL SETTING-CANYON LAKE RECREATION**

#### **3.1 LOCATION**

FSH is located in south central Texas. The Fort Sam Houston installation comprises FSH proper, Camp Bullis, and CLRA, as shown on Figure 3-1.

CLRA is located in the Jacobs Creek Park area of Canyon Lake Reservoir, 48 miles north of San Antonio. CLRA contains approximately 110 acres of land, as depicted on Figure 3-2. The area is approximately 0.80 miles long and 0.40 miles wide (at its widest point), and reaches east to west on the northern side of a peninsula along the north lake shore.

#### **3.2 DESCRIPTION OF INSTALLATION ACTIVITIES**

CLRA is maintained for the recreational enjoyment of the personnel assigned to FSH and their dependents. Major facilities include a camping area, marina, bath and shower buildings and water and wastewater treatment plants.

#### **3.3 SURFACE WATER**

CLRA is located on a ridge bounded on three sides by Canyon Lake. All structures have been built 960 feet above mean sea level (MSL). The Canyon Lake Dam crest is at 943 feet MSL.

Area flooding at the recreation area has been encountered during the flood of October 1998 and July 2002. The marina, although a floating structure and changes elevation as water volume in the lake changes, was flooded.

#### **3.4 FACILITY DRAINAGE**

CLRA is located on a ridge bounded on three sides by Canyon Lake. Stormwater drains to the lake. All structures have been built 960 feet above mean sea level. Sanitary sewage is collected from these structures and is routed through underground sewers into the CLRA sewage treatment plant.

#### **3.5 CLIMATE**

CLRA experiences a modified subtropical climate. Normal mean temperatures range from a low of 50.7° F in January to a high of 84.7° F in July. The summer is hot with maximum

temperatures above 90° F over 30 to 40% of the time. Weather is mild during the winter, with freezing temperatures occurring about 20 days each year.

Precipitation is distributed fairly well throughout the year, yielding an average annual rainfall of 27.54 inches. Normally, the heaviest amount of rainfall is during the months of May and June; much of this rainfall is accountable in sizeable downpours. The heaviest precipitation month on record was July 2002 with 16.93 inches in the San Antonio area, while the lowest precipitation month on record was in both August 1952 and November 1970 with 0.01 inches.

The average relative humidity is 80% in the morning and 50% in the late afternoon. Northerly winds prevail during the winter, and southeasterly winds prevail during the summer.

## Figure Frame

### Figure 3-1 General Location of Canyon Lake Recreation Area and its Associated Properties in Central

Pages:

1

## **Figure Frame**

### **Figure 3-2 Site Map CLRA**

**Pages: 1**



## **4. ROLES AND RESPONSIBILITIES**

The following paragraph describes the overall responsibilities of the SPCCP Team Members. Team Members consist of representatives from Directorate of Safety, Environment and Fire (DSEF) division, site managers from individual units located on FSH, the FSH Fire Department, and the FSH Directorate of Readiness Logistical Business Center (RLBC).

### **4.1 SPCCP RESPONSIBILITIES**

The SPCCP will be managed and implemented by the DSEF. The designated responsible individual who is accountable for oil spill prevention at FSH is the Director of Safety, Environment and Fire. He is also the designated Installation On-Scene Coordinator (IOSC) during spill events. In his absence, oil spill responsibilities will be managed by his designated backup. It is the responsibility of this person to ensure that all elements of the SPCCP are followed by the various units operating on CLRA proper which store oil, hazardous waste, or hazardous substances.

A proposed list of SPCCP Team Members and responsibilities has been comprised and provided as Exhibit 4-1.

**EXHIBIT 4-1**  
**SPILL PREVENTION CONTROL AND COUNTERMEASURES**  
**TEAM MEMBERS AND RESPONSIBILITIES**

---

**TITLE: DIRECTORATE OF SAFETY, ENVIRONMENT, AND FIRE**

**Role: Installation On Scene Coordinator (IOSC)- Lt. Col Sanders**

**Office Phone: (210) 221-4842**

**Responsibilities:**

- Coordinate SPCCP implementation, review, and revision.
- Coordinate and ensure that spill containment is installed for areas storing oil, hazardous waste, and hazardous substances.
- Coordinate periodic inspections of storage areas.
- Ensure that records are maintained of inspections, testing, and spill events.
- Coordinate and ensure personnel training is conducted and documented.
- Identify potential spill sites applicable under SPCC regulations and include them in the SPCCP.
- Coordinate and direct spill response activities, as described in the ISCP, for a spill whose size or nature indicates that it may escape the local area or exceed the control capabilities of the local site supervisor.
- Ensure that the SPCCP is updated and reviewed by a registered Professional Engineer.
- Provide authority as the IOSC to coordinate and direct FSH control and cleanup efforts at the scene of an Army-caused oil or hazardous substance discharge on or adjacent to FSH. Ensure that all proper documentation not limited to but including photographs and a incident report is provided to Staff Judge Advocate.
- Program and budget for personnel, materials, and equipment in support of the SPCCP. At a minimum, ensure that the plan will fulfill the spill control requirements of all applicable state and federal regulations.
- Distribute copies of the SPCCP and ISCP to each unit, command, or other entity onsite at FSH that store oil, hazardous waste, or hazardous substances.

**EXHIBIT 4-1**  
**SPILL PREVENTION CONTROL AND COUNTERMEASURES**  
**TEAM MEMBERS AND RESPONSIBILITIES (cont.)**

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**TITLE : STAFF MEMBER - DIRECTORATE OF SAFETY, ENVIRONMENT, AND FIRE**

**Role: IOSC Alternate and Team Member – David Walker or designated alternate**

**Office Phone: (210) 221-4842**

**Responsibilities:**

- Provide technical advice and supervision in training to the Installation Response Team (IRT) members.
- Ensure that inspections of storage areas are routinely conducted.
- Ensure that inspections of aboveground storage tanks are routinely conducted.
- Test the effectiveness of the Initial Installation Response Team (IIRT), the fire department, training, and of this plan through annual exercises. Utilize Exhibit 4-6, Spill Response Exercise Form, in the ISCP to evaluate the exercises.
- Ensure that the IOSC and all members of the IRT are covered by a routine periodic medical surveillance program in accordance with 29 CFR 1910.120.

**EXHIBIT 4-1**  
**SPILL PREVENTION CONTROL AND COUNTERMEASURES**  
**TEAM MEMBERS AND RESPONSIBILITIES (cont.)**

---

**TITLE: CLRA FACILITY MANAGER**

**Role: Team Member - Skip Thomas**

**Office Phone: (830) 269-4571**

**Responsibilities:**

- Manage and maintain areas that store or handle oil, hazardous waste, or hazardous substances in their facility in accordance with Installation Hazardous Waste Management Plan.
- Responsible for implementing the provisions of SPCCP, which pertain to their specific facility.
- Coordinate routine inspections of aboveground storage tanks (ASTs).
- Coordinate cleanup of nonreportable spills within their facilities that their organization can handle without involvement of other units or outside parties.
- Report nonreportable and reportable spills to the IOSC.
- Ensure that personnel handling, storing, or transporting substances are properly trained.
- Maintain records for each tank or container storage facility and mobile tanks, mounted on a transportation vehicle to show inspection for leaks and proper corrective action if appropriate. Comply with requirements in the Installation Hazardous Waste Management Plan for movement and storage of hazardous waste or materials.

**EXHIBIT 4-1**  
**SPILL PREVENTION CONTROL AND COUNTERMEASURES**  
**TEAM MEMBERS AND RESPONSIBILITIES (cont.)**

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- Post in a conspicuous place at each storage location, the instructions to be followed and/or personnel to contact in the event of a spill.
- Post in a conspicuous place, the location of spill control material and equipment to be used in the event of a spill at each storage location.
- Ensure that personnel report any discovered spills or storage containers.

**EXHIBIT 4-1**  
**SPILL PREVENTION CONTROL AND COUNTERMEASURES**  
**TEAM MEMBERS AND RESPONSIBILITIES (cont.)**

---

**TITLE: FIRE CHIEF OR DESIGNATED PERSONNEL – FORT SAM HOUSTON FIRE DEPARTMENT**

**Role: IIRT Team Leader - Curtis Williams or designated alternate**

**Office Phone: (210) 221-2727**

**Responsibilities:**

- Coordinate with the DSEF for implementation costs for materials and equipment required to respond to spills
- Review and provide comments to SPCCP.
- Ensure that all members of the IRT are covered by a routine periodic medical surveillance program in accordance with 29 CFR 1910.120.

**TITLE: READINESS LOGISTICAL BUSINESS CENTER (RLBC)**

**Role: LTC Steve Bolint**

**Office Phone: (210) 221-2902**

**Responsibilities:**

- Distribute copies of plan to all reserve component units training at FSH.

## **5. OVERVIEW OF HAZMAT FACILITIES**

Sites at CLRA that store petroleum, oil, or lubricants (POLs), hazardous substances, and/or hazardous waste (HW) have a potential for spills to occur. These sites include areas having, ASTs or SASs that store containers of oil, hazardous waste, or hazardous substances listed in Appendix B. This section identifies potential spill sites at CLRA where there is sufficient storage of oil, hazardous wastes, and hazardous substances, as defined by 40 CFR 112 and 40 CFR 302.4 to warrant specific inclusion within this SPCCP. Exhibit 5-1 lists the sites at CLRA that store POLs, hazardous substances, and/or HW. Additionally, those sites that have ASTs, and/or SASs are included in this exhibit.

The following sections provide a description of the areas that may present a potential spill hazard and suggests some preventive measures that may be implemented to minimize those hazards. Facility specific information that identifies the spill potential, spill route, safety precautions of known hazardous substances, contingency action, preventive maintenance and security measures for each site identified in Exhibit 5-1 is provided as Appendix C. Additionally, procedures necessary for responding to a spill as required by the ISCP are included in the facility specific information.

### **5.1 POL, HAZARDOUS SUBSTANCE, AND HW STORAGE AREAS**

The three facilities at CLRA are managed by the CLRA Facility Manager (HW manager) who is responsible for monitoring, inspecting, reporting spills, HW accounting, handling, and storage of HW or substances. The CLRA Facility Manager is responsible for the preventive maintenance and inspection programs at their sites. The inspection program is described in Section 6.0. Exhibit 5-1 lists all of the facilities where POL's, hazardous substances, and HW storage (SAS's) are located at CLRA. Facility specific information is provided as Appendix C.

## **5.2 BULK STORAGE TANKS**

### **5.2.1 Aboveground Tanks**

The ASTs at CLRA are constructed of materials compatible with the material stored. Most of the ASTs have an acceptable form of secondary containment which provides for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation, or have drainage systems whereby spills will enter an oil-water separator. Exhibit 5-1 lists the facilities where ASTs are located, the material stored, and the tank capacities. Facility specific information is provided as Appendix C.

For the tanks which have external secondary containment, operational procedures must be in place to release collected rainwater from the containment dike. To comply with SPCC regulations, the drainage must be properly managed, as follows:

- The drain valve must be normally sealed closed.
- Drainage water collected within the dike must be inspected to ensure that no oil or sheen is present prior to opening the valve.
- The valve must only be opened under authorized supervision.
- Records must be maintained documenting the discharge.

## **5.3 OIL LOADING AND UNLOADING OPERATIONS**

All fuel is delivered to CLRA by truck, but the AST site has no spill protection installed for possible spills during unloading/loading operations. Any spills occurring during unloading operations will drain directly into Canyon Lake. To comply with the SPCC regulations under 40 CFR 112.7(h)(1), a quick drainage system must be used for tank truck unloading areas which would have a containment system designed to hold the maximum capacity of any single compartment of a tank truck unloaded at the facility.

In addition, warning lights, physical barriers or warning signs must be in use during unloading operations to prevent tank truck departure before complete disconnection of the transfer hoses.



**EXHIBIT 5-1**  
**HAZMAT STORED AT EACH FACILITY**

Facility No. / Name	POL's, HS's, HW's	ASTs		SECONDARY CONTAINMENT
		TANK ID	CAPACITY	
312 – Water Treatment Plant	Chlorine (150 lb cylinders)			Cylinders are stored inside building
Wastewater Treatment Plant	Chlorine (150 lb cylinders)			Cylinders are stored inside building
Marine Fueling Station	Gasoline	1,2	1,000 gallons and 500 gallons	Tanks are double walled tanks located inside concrete berm area.

## **6. SPCC INSPECTIONS, TRAINING, AND RECORDKEEPING**

This section identifies various levels of inspections, training, and exercises as required under 40 CFR 112 to comply with SPCC regulations.

### **6.1 INSPECTIONS**

FSH will maintain an ongoing SPCC inspection program where structures and operating equipment important to preventing, detecting, or responding to potential environmental or human health hazards will be inspected. This inspection program defines the types of tanks and ancillary equipment to be inspected and the types of problems that the inspection seeks to identify. The frequency of inspection is based on the anticipated rate of possible deterioration of the equipment and the likelihood of an environmental or human health incident occurring if deterioration goes undetected between inspections. The required inspections and testing are further detailed in the following paragraphs. The inspection program should identify the need for corrective actions where needed.

Any deterioration or malfunction of equipment or structures noted during an inspection should be remedied. If the problem poses an imminent hazard to human health or the environment, remedial action should be taken immediately.

In addition to equipment inspections, inspections of rainwater, which has collected within a containment dike, must be performed prior to release of the water.

As required by 40 CFR 112.7(e), the organizations responsible for operation of underground and aboveground storage tanks at FSH will document that inspections are performed on the tanks and ancillary equipment. Written procedures and this Plan will be used for training these personnel and documented. DSEF representative shall oversee the inspections and copies of inspection forms shall be maintained by DSEF for a period of three years.

#### **6.1.1 Fuel and Oil Products Inventory**

A fuel and oil products inventory will be performed monthly. Tanks will be gauged on a daily basis when in use and otherwise gauged monthly under static storage conditions (i.e. tanks used for

emergency purposes only). Liquid levels will be monitored by a dipstick measuring device, a steel tape with bobber, and/or electronically. Results of monitoring should be recorded on DA Form 5831-R, "Petroleum Product Inventory Control Sheet". Any unexplainable decrease or increase in quantity could indicate leakage (An increase in quantity can occur if water leaks into the tank). If product is added or removed between routine gauge checks, any discrepancy between the gauge quantities, beyond the allowable percent loss for the particular product, may indicate leakage. Suspected leaks will be reported to DSEF for initiation of cleaning, inspection, and needed repairs. Completed inspection sheets should be maintained at each facility or organization for a minimum of 3 years.

### **6.1.2 Tank Inspections**

Tank inspections will consist of periodic visual inspections on ASTs, leak detection ports on applicable ASTs and any visible ancillary equipment, such as pipelines, pumps, valves and gauges. All tank inspection records will be maintained on file for a period of 5 years.

Aboveground bulk storage tank inspections should be performed on a monthly basis by the site manager or designated inspector.

The results of tank inspections will be recorded using the form provided as Exhibit 6-1, as follows:

1. The date, time, tank unit name or identification number, and the inspector's name should be recorded.
2. Each item should be inspected individually. If the inspection item meets the criteria described in Item 4 below, the column should be marked by the inspector's initials or check marked. If any problems with the tank systems are observed, the item number should be noted in the discrepancy record and the problem described.
3. If maintenance is required, the necessary repairs and maintenance status should be described on the form and the work order number shown. In instances where repairs are necessary, the repair technician should initial and date the maintenance status column and fill in the appropriate status code given on the bottom of the form.

4. Items to be inspected for each unit, as applicable, include:
  - a. Tanks:
    - Tank wall: Check for signs of deterioration (rust, leakage, etc.).
    - Secondary containment: Check for accumulation of oil or fuel inside diked areas.
    - Double-walled tanks: Check the leak detection port using a dipstick to determine if leakage has collected between the inner and outer tanks.
  - b. Valves:
    - Handles and connections: Check for leakage. Handles should be in good condition and not bent or broken.
    - Fusible links (if present): Check to ensure that the links are in good condition.
    - If possible, the operator should check the valve's operation by turning the valve on and off.
  - c. Pipes:
    - Connections: Check for leakage and signs of leaks (e.g., wet spots). especially check flexible connections with camlock fittings.
    - Piping: Check pipe for rust, dents, cracks, or leaks.
    - Supports: Check for loose or unstable supports.
  - d. Level Gauges:
    - Test to ensure instrument is operating properly and is calibrated.

A sample inspection checklist for aboveground storage tanks is provided as Exhibit 6-1 and should be kept as Appendix D.

## EXHIBIT 6-1

### ABOVEGROUND STORAGE TANK INSPECTION CHECKLIST

<b>Tank Identification No:</b>				
<b>Location:</b>				
<b>Contents:</b>				
<b>Date of Inspection:</b>				
<b>Inspector Name:</b>				
	<b>Problem Identified (Yes/No)</b>	<b>Description of Problem &amp; Repair Required</b>	<b>Inspected by (Initials)</b>	<b>Inspection Date</b>
<b>Tank Condition</b>				
Leakage visible				
Rust				
Cracks				
Damage				
<b>Secondary Containment Condition</b>				
Visible oil				
Dike integrity				
Double-wall leak detector port				
<b>Valve Condition</b>				
Handles				
Fusible links				
Valve operable?				
Leakage visible?				
<b>Piping Condition</b>				
Flanges				
Flexible connections				
Rust				
Cracks				
Damage				
Supports intact				
Secondary containment				
Leakage visible				
<b>Level Gauges</b>				
Gauge operable				
Calibrated				

## **6.2 PERSONNEL TRAINING**

Personnel involved in the management and handling of oil, hazardous waste or hazardous substances should participate in periodic spill prevention and response training programs in accordance with 40 CFR 112.7(f), 40 CFR 265.16 or 29 CFR 1910.120. Training should be facilitated by individuals familiar with the SPCCP and HW management (i.e., the BFE hazardous waste coordinator).

Training programs should be conducted in accordance with 29 CFR 1910.120 as follows:

1. Annually.
2. Within 6 months (2 weeks recommended) for personnel starting in a supervisory position; prior to starting work for personnel entering a non-supervisory position.
3. After any significant revisions to the training program or the SPCCP.
4. After a spill response in which training deficiencies were noted.

Records of the type, extent, and frequency of each employee's training should be maintained by the DSEF and copies provided to the individual facilities.

There are three types of training which should be performed related to health and safety, hazardous waste management and spill control and countermeasures. The DSEF should make these courses available to the appropriate personnel, either by instructing the courses or providing an outside contractor to perform training. The requirements of each course are detailed below.

### **6.2.1 OSHA Hazardous Waste Operations Training**

In accordance with 40 CFR 1910.120, personnel forming the IIRT and the IRT should receive an initial 40 hours of hazardous waste operations (HAZWOPER) training. Eight hours of refresher training should be performed annually. The elements to be covered in this training include:

- Names of personnel and alternates responsible for site safety and health.
- Safety, health and other hazards present on the site.
- Use of personal protective equipment.
- Work practices by which the employee can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.

- Medical surveillance requirements, including recognition of symptoms and signs which might indicate overexposure to hazards.
- Decontamination procedures.
- An emergency response plan (the ISCP) for safe and effective responses to emergencies, including the necessary PPE and other equipment.
- Confined space entry procedures.
- Proper use and labeling of drums and containers.

### **6.2.2 RCRA Hazardous Waste Management**

Personnel from the DSEF Compliance Section and the hazardous waste manager of generating units should receive 3 days of hazardous waste management training within 6 months of hire or new job assignment and 1 day of annual refresher training, in accordance with 40 CFR 265.16. In addition, generating unit operators handling hazardous waste should also receive initial and refresher training on the management of hazardous wastes, including emergency procedures outlined in the ISCP. The training should be directed by a person trained in hazardous waste management procedures, and should include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. At a minimum, the training program should be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with the SPCCP and the ISCP, emergency equipment, and emergency systems.

### **6.2.3 Spill Prevention Control and Countermeasures Training**

Personnel from the DSEF Compliance Section and personnel responsible for the management of oil storage and handling equipment should receive an initial 1-day classroom training within 6 months of hire or new job assignment and an additional 1-day annual refresher training, in accordance with 40 CFR 112.7. This training will encompass the proper operation and maintenance of equipment to prevent the discharges of oil, and applicable pollution control laws, rules and regulations. Spill prevention procedures described in the SPCCP and emergency procedures described in the ISCP will also be discussed.

#### **6.2.4 Non CLRA Personnel/Contractor Training**

Contractors working in areas associated with oils or hazardous substances are responsible for training their personnel in spill response and reporting procedures. The contract administrator for the Army is responsible for providing these contractors with a summary of spill response and reporting procedures.

### **6.3 RECORD KEEPING**

A record of inspections and training logs, signed by the supervisor or inspector, should be maintained on file, along with this plan, for a minimum period of 3 years. These records should be maintained as Appendix D and E, respectively. Additionally, these records should be maintained by the Director of DSEF for three years. In accordance with 30 TAC 334.47(e), a record of tank inspections shall be maintained for 5 years.



## 7. SPILL HISTORY

In accordance with 40 CFR 112.7(a), a record of spills within the past 12 months at the installation requiring implementation of this plan will be included in this Plan. As of the date of this revision, there have been no reportable spills at CLRA within the past year.

A permanent log should be kept of reportable spills at the installation requiring implementation of this plan. The log should contain the following:

- Name and location of spill site,
- Type and estimated amount of spill,
- Date and time of spill, if known, or time of spill detection,
- Name of person detecting or reporting spill,
- Name(s) of person(s) involved in clean-up,
- Process of clean up,
- Regulatory notification process: names and telephone numbers of persons contacted, respective agency (agencies), and time of contact, and
- Final disposition of the spill: a written record of all events reflecting final disposition of the spill, including plans for preventing recurrence.

Most of the information needed for the log can be obtained from the initial spill report which should be submitted to the appropriate authorities within 24 hours of the incident. A copy of the Spill Response Notification Form required to document a spill is provided as Exhibit 7-1. Procedures and protocol when responding to a spill are outlined in the ISCP preceding this document and in the facility specific information provided as Appendix C.

## EXHIBIT 7-1

### SPILL RESPONSE NOTIFICATION FORM

Installation Point of Contact:
Phone Numbers:
Reporter's Name:
Position:
Phone Number:
Installation:
Address:
City:
State:
Zip Code:
MACOM:
Date Reported:
Time Reported:
Source and/or Cause of Incident:
Date of Incident:
Time of Incident:
Incident Address/Location:
Nearest City:
State:
County:
Zip Code:
Distance from City:
Direction from City:
Section:
Range:
Facility Capacity:
Tank Capacity:
Container Type:
Material:
Released Quantity:
Quantity Released in Water:
Unit of Measure:
Reportable Quantity
- Federal: - State:
Action Take to Correct, Control, or Mitigate Incident:
Number of Injuries:
Number of Evacuated:
Clean-up Costs:
Notification:
-EPA: -Other:
-State:
-NRC:
-SWRO:

**FINAL**

**INSTALLATION SPILL CONTINGENCY PLAN**

**CANYON LAKE RECREATION**

Prepared for

**U.S. ARMY CORPS OF ENGINEERS**  
TULSA DISTRICT

Prepared by

**WESTON SOLUTIONS, INC.**  
5599 San Felipe, Suite 700  
Houston, TX 77056

February 2003

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**LIST OF ACRONYMS AND ABBREVIATIONS**

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AAFES	Army and Air Force Exchange Service
AMED	Army MedCom
AR	Army Regulation
AST	aboveground storage tank
BAMC	Brooke Army Medical Center
BFE-C	Business Center of Fire and Environment-Compliance
CABC	Directorate of Community Activities Business Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHEMTREC	Chemical transportation Emergency Center
CID	Criminal Investigation Division
CLRA	Canyon Lake Recreation Area
CWA	Clean Water Act
DOD	Department of Defense
DPS/PMO	Department of Public Safety
DSEF	Directorate of Safety, Environment, and Fire
EHS	Extremely hazardous substances
EO	Executive Order
EPA	United States Environmental Protection Agency
ETIS	Environmental Technical Information System
FFCA	Federal Facilities Compliance Act
FSH	Fort Sam Houston
HAZMAT	hazardous material
HAZWOPER	Hazardous Waste Operations
HS	hazardous substance
HVAC	Heating, Ventilating, and Air Conditioning
HW	hazardous waste
IC	Incident Commander
IIRT	Initial Installation Response Team
IOSC	Installation On-Scene Commander

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**LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)**

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IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan
LEPC	Local Emergency Planning Committee
MOGAS	Motor Gasoline
MSL	Mean Sea Level
NCP	National Contingency Plan
NRCS	Natural Resource Conservation Service
NIOSH	National Institute for Occupational Safety and Health
NRC	National Response Center
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System
OPA	Oil Pollution Act
OPP	Oil Pollution Plan
OSHA	Occupational Safety and Health Act
PCB	Polychlorinated Biphenyls
PE	Professional Engineer
POL	petroleum, oil, or lubricant
PPE	personal protective equipment
PWBC	Directorate of Public Works Business Center
RCRA	Resource Conservation and Recovery Act
RLBC	Directorate of Readiness and Logistic Center
RQ	reportable quantity
RRC	Railroad Commission of Texas
RSC	Reserve Support Command
SARA	Superfund Amendments and Reauthorization Act
SAS	Satellite Accumulation Site
SCBA	Self Contained Breathing Apparatus
SERC	State Emergency Response Commission
SERO	Senior Emergency Response Officer
SJA	Staff Judge Advocate
SPCCP	Spill Prevention, Control, and Countermeasures Plan
TAC	Texas Administrative Code



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**LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)**

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TCEQ	Texas Commission of Environmental Quality
TERC	Texas Emergency Response Center
U.S.C.	United States Code
USCG	United States Coast Guard
USDOD	U.S. Department of Defense
USGS	United States Geological Survey
UST	underground storage tank

## **SPILL ASSESSMENT AND EMERGENCY RESPONSE FLOW CHART**

## **1. INTRODUCTION**

The National Contingency Plan (NCP) was established under the Clean Water Act (CWA), as amended, and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The NCP requires federal agencies to plan for emergency response to spills of oil and hazardous substances for which they are responsible. Army Regulation (AR) 200-1 states that it is Army policy to provide for prompt, effective response to contain and cleanup spills that might occur. Further, AR 500-60 requires the Army to make provisions for assisting the U.S. Environmental Protection Agency (EPA) and U.S. Coast Guard (USCG) with spills not due to Army activities. The Installation Spill Contingency Plan (ISCP) has been developed to fulfill CLRA compliance with the above regulations when responding to spills.

### **1.1 PURPOSE**

This ISCP establishes responsibilities, duties, procedures, and resources to be employed to contain, mitigate, and cleanup oil and hazardous substance spills at Canyon Lake Recreation Area (CLRA).

### **1.2 APPLICABILITY**

The ISCP is applicable to each site at CLRA that stores, handles, or transfers oil, hazardous waste, or hazardous substances. Facility specific information for those identified facilities is included in Appendix C of the Spill Prevention Control and Countermeasures Plan for FSH. Copies of this document will be made available to the Directorate of Community Activities Business Center (CABC); Provost Marshal Office (PMO); Public Works Business Center (PWBC); Readiness Logistic Business Center (RLBC); Preventive Medicine Service; 749<sup>th</sup> Ordnance Detachment; Public Affairs Office; Staff Judge Advocate(SJA); the FSH Fire Department; and other appropriate command offices. A copy of the plan will also be provided to each site that stores oil, hazardous waste, or hazardous substances. Separate plans exist for Camp Bullis and Fort Sam Houston.

## **2. ISCP IMPLEMENTATION, REVIEW, AND UPDATING**

The ISCP shall be used while planning a response to a spill. The plan shall be implemented when there is a potential for any of the following conditions:

- When a reportable-quantity release has occurred.
- When an oil spill reaches or has the potential to reach navigable waters.
- When there is any doubt as to the seriousness of a hazardous materials incident.

A reportable quantity is a specific quantity of a given chemical that is deemed a hazard to human health or the environment. Appendix B contains a list of the hazardous substances subject to reportable quantity notification under the Superfund Amendments and Reauthorization Acts (SARA) of 1986. Periodically chemicals are added and deleted from this list. Updates are noted in the *Federal Register* and can be found at 40 CFR § 302.4.

### **2.1 PLAN REVIEW AND UPDATE**

The Directorate of Safety, Environment, & Fire (DSEF) should review and evaluate the ISCP every 5 years. Any substantive change should be entered into the plan within 6 months of the change and certified by a Texas Professional Engineer. At a minimum, this means that any amendments made to the Spill Prevention, Control, and Countermeasures Plan (SPCCP) should be reflected in the ISCP.

### **2.2 PLAN DISTRIBUTION**

The DSEF is responsible for distributing copies of the ISCP to the appropriate command offices and to each site that stores oil, hazardous waste, or hazardous substances.

### **3. ROLES AND RESPONSIBILITIES**

Section 3 describes the roles and responsibilities of organizations and individuals charged with responding to spills at CLRA. The DSEF is responsible for organizing FSH response capabilities, including identifying response team members and ensuring that adequate spill response equipment is available at CLRA.

#### **3.1 INSTALLATION RESPONSE TEAM**

FSH resources and their roles in a spill response are detailed below. The Installation Response Team (IRT) is tasked with emergency response duties as outlined below. Exhibit 3-1 provides the names, addresses, and work and home telephone numbers of the IRT members.

##### **3.1.1 Directorate of Safety Environment and Fire**

The DSEF plans spill response actions for incidents occurring at FSH. Unless otherwise directed by the Installation On-scene Coordinator (IOSC), the installation spill response operations center will initially be located as follows:

- CLRA Facility Manager's Office

The DSEF shall be responsible for the following:

- Provide the IOSC and an alternate.
- Provide IRT personnel and equipment, as required.
- Facilitate IRT training.
- Maintain necessary equipment and supplies on hand for the IRT.
- Update and distribute copies of the ISCP to the appropriate command offices and to each site that stores oil, hazardous waste, or hazardous substances.

### EXHIBIT 3-1 INSTALLATION RESPONSE TEAM CONTACT LIST

Name	Work Number	Home Number	Home Address
<b><u>Installation On-Scene Coordinator:</u></b>			
Lt. Col. Sanders	210/221-4842	210/404-2276	13035 Trent Street, San Antonio, TX 78232
David P. Walker (Alternate)	210/221-4842	210/497 - 2045	2317 Encino Cliff San Antonio, TX 78259
<b><u>First Responder (Fire Department):</u></b>			
Fire Chief – Curtis Williams	210/221-1804	210/391-7493 Cell	Not available
Anthony Shultz (Alternate)	210/221-2727	210/358-1801	4355 Dexired, San Antonio, TX 78240
<b><u>Second Responder Electrical:</u></b>			
Jamie Machado (Primary)	210/221-3350	210/921-2462	530 W. Mayfield Blvd. San Antonio, TX 78211
James Seymore (Alternate)	210/221-3420	210/659-7055	P.O. Box 1599 Blanco, TX 78606
<b><u>O&amp;M Roads and Grounds:</u></b>			
Martin Gonzales	210/221-3559	210/299-1254	3107 Neptune Street San Antonio, TX 78226
<b><u>Notification:</u></b>			
David Walker	210/221-5099	210/497-2045	2317 Encino Cliff San Antonio, TX 78259
<b><u>Cleanup:</u></b>			
Irma Pena-Avalos	210/221-5066	210/520-5536	742 West Kirk Place San Antonio, TX 78226
<b><u>Safety:</u></b>			
Guadalupe Gomez	210/221-0830	210/834-4309 Cell 210/496-6566 HM	2106 Peach Blossom San Antonio, TX 78247
<b><u>Public Affairs:</u></b>			
Phil Reidinger	210/221-1151	210/698-2017	7921 Triple Crown Fair Oaks Ranch, TX 78015
<b><u>Preventive Medicine:</u></b>			
Al Kennedy	210/916-7011	210/658-7553	8351 Delphian Universal City, TX 78148
<b><u>Provost Marshall Office:</u></b>			
LTC Floyd Williams	210/221-1404	Not Available	Not Available

**EXHIBIT 3-1**  
**INSTALLATION RESPONSE TEAM CONTACT LIST (Cont.)**

<b>Name</b>	<b>Work Number</b>	<b>Home Number</b>	<b>Home Address</b>
<b><u>Staff Judge Advocate:</u></b>			
Kent Grubb	210/221-2373	210/405-2815	15510 Creekside San Antonio, TX 78232
<b><u>749<sup>TH</sup> Ordnance Dept.:</u></b>	210/221-1308		
<b><u>DHS :</u></b>	911		
<b><u>DPTMSEC:</u></b>			
LTC Steve Bolint	210/221-2902	Not Available	Not Available

### **3.1.2 Initial Installation Response Team (First Responders)**

If a spill is too large to contain by facility personnel, due to logistical concerns, the New Braunfels Fire Department will serve as the initial installation response team (IIRT) until the FSH Fire Department can arrive on site and assume the role as IIRT. The IIRT will be called for spills of a magnitude greater than that which can be handled by on-site personnel and equipment. This team shall contact the IOSC upon arrival at a spill site. The IIRT shall take all measures to control and contain the spill until the IOSC arrives at the spill site.

The IIRT may consist of personnel from the Fire Department, and the fire chief shall be designated as the Senior Emergency Response Officer (SERO). The SERO should direct field operations to eliminate all immediate threats to life and property. The SERO will consult with the IOSC before conducting any operations if time permits. The SERO will maintain communication with the IOSC and make recommendations to the IOSC regarding response actions.

### **3.1.3 The Installation On-Scene Coordinator**

The Director of DSEF should serve as the IOSC with a designated alternate serving as the alternate IOSC. The IOSC is the official who coordinates and directs Army control and cleanup efforts at the scene of an oil or hazardous substance or waste spill from Army activities on or near the installation. In compliance with 40 CFR 265.55, this person or the designated alternate should either be on the installation premises or on call at all times. The IOSC should have a radio-equipped vehicle or cell phone. The radio should be capable of operating on the DSEF operations and fire operations frequencies. The DSEF vehicle should normally be the IOSC's vehicle. If the individual selected as the IOSC has an assigned vehicle that satisfies the radio requirement, that vehicle may be used.

Specifically, the IOSC shall be responsible for the following:

- Report to the spill scene or the Fire Department, as appropriate, immediately on first notification of the spill.
- Assess the spill, determine the appropriate response, and mobilize IRT or selected members and equipment.
- Request assistance from other governmental or private sources, if needed.



- Notify the installation executive officer, the Deputy to the Garrison Commander, of all reportable quantity spills.
- Assist the individual first observing/reporting the spill in completing a spill report (Exhibit 5-1).
- Notify appropriate local, state, and federal agencies, as required (Exhibit 3-2).
- Maintain an incident log for all spills.
- Assess, in coordination with Preventive Medicine activity personnel, environmental damage and possible hazards to human health, and recommend appropriate restoration measures.
- Prepare and submit reports to higher headquarters, EPA, and/or United States Coast Guard (USCG), as appropriate.
- Test the effectiveness of this ISCP by conducting and documenting an annual exercise (Exhibit 4-6).
- Compile and maintain at the DSEF a material safety data sheet (MSDS) for all chemicals used or stored at CLRA.

#### **3.1.4 Decontamination Unit**

The IIRT also serves as the decontamination unit. The decontamination unit applies material, removes contaminated material, packs contaminated material, and applies other decontamination measures to the contaminated area. The decontamination unit leader is responsible for the technical aspects of decontamination.

### **3.1.5 Provost Marshal Office**

The Provost Marshal Office shall provide guards and traffic control as necessary to secure the spill site. The PMO is responsible for investigation of a spill that could be a criminal act or else is responsible to contact the Criminal Investigation Division (CID) to investigate. It is recommended that the PMO coordinate with CID to establish procedures of assessing a spill when criminal activities are suspected. The DSEF and the PMO are responsible for ensuring that Team members are briefed on this procedure.

### **3.1.6 Directorate of Readiness and Logistics Center (RLBC)**

The RLBC should perform the following:

- Provide to the IOSC a representative knowledgeable in fuel storage and handling procedures.
- Ensure that petroleum handling operations comply with the spill prevention measures described in this plan.
- Ensure that all personnel handling oil or hazardous materials such as military, DPCA, and contractors are familiar with the reporting requirements of this plan.

### **3.1.7 Preventive Medicine Service**

The Preventive Medicine Service, Brooke Army Medical Center (BAMC), should perform the following:

- Assess immediate health threat to response teams and to military and civilian personnel, and recommend appropriate countermeasures.
- Assess, in coordination with DSEF, environmental damage and health hazards resulting from the incident.
- Provide a member for the IRT, as required.
- Recommend and supervise personnel decontamination procedures, as required.

### **3.1.8 749th Ordnance Detachment**

The 749<sup>th</sup> Ordnance Detachment provides support for ordnance disposal, if required.

### **3.1.9 Public Affairs Office**

The Public Affairs Office shall prepare for the IOSC review and release news briefs and photographs documenting spill responses.

### **3.1.10 Staff Judge Advocate**

The Staff Judge Advocate should perform the following:

- Ensure that information, records, photographs, and samples relating to a spill, as provided by the IOSC, are adequate for legal purposes and are safeguarded for future use, in the event the spill expands beyond the installation boundaries.
- Provide a member for the IRT, as required.

### **3.1.11 Local Unit Site Manager**

The local unit site manager for the AST's, water and wastewater plants, will be responsible for cleanup of all nonreportable spills within their local area which they can handle without involvement of other units or outside parties. However, whether a spill is reportable or not, the IOSC will be notified of all such incidents.

Site managers should keep spill kits on hand for spill emergencies. Response equipment is further detailed in Section 4 of this document. Exhibit 4-1 is a recommended list of spill control materials and equipment. Spill kits should be inspected on a monthly basis for completeness of components. The site manager should maintain the spill kits between inspections.

Evacuation routes for interior building areas near hazardous material storage areas should be defined by the site manager and identified on specific drawings of the building. These drawings should be produced by the site managers. Exterior site evacuation routes should be planned for each site by the SAS manager and DSEF based on prevailing wind direction and specific site conditions.

## **3.2 OFF-POST SPILL RESPONSE RESOURCES**

In addition to the post organizations and personnel assigned to the response effort, provisions have been made for notifying off-post organizations when FSH/CLRA spill response resources and expertise are insufficient, and when off-post water, land, or air are adversely affected. Some of the major off-post spill response resources are discussed in the paragraphs below. Exhibit 3-2 contains a current listing of telephone numbers to contact off-post spill response resources.

### **3.2.1 Local Authorities**

Upon the IOSC request, the County Sheriff's office and New Braunfels Police Department should be called to assist in securing any on- or off-post areas in proximity to the spill site, disseminating information to the local populace, and evacuating personnel, if necessary. The New Braunfels Fire Department should be called on to provide personnel and equipment to control fire hazards. A list of local response organizations is available in Exhibit 3-2.

**EXHIBIT 3-2**  
**FEDERAL, STATE, AND LOCAL AGENCIES**

<u><b>AGENCY</b></u>	<u><b>TELEPHONE</b></u>	<u><b>WHEN TO CALL</b></u>
Fort Sam Houston Fire Department	210/221-2727	If New Braunfels Fire Department requires assistance
New Braunfels Fire Department	830-608-2140	If assistance is required to assist with spill
New Braunfels Police Department	830-608-2179	If additional assistance is required
San Antonio Police Department	210/207-7484	If additional assistance is required
Local Emergency Planning Commission (LEPC)	210/828-3939	If additional assistance is required
CHEMTREC	800/424-9300	If you need information on a specific chemical
DoD Pesticide Hotline (for pesticide spills)	410/671-3773 DSN 584-3773	If a spill involves pesticides
National EPA Response Center	800/424-8802	If a reportable spill
Regional EPA Response Center (Region 6)	866-372-7745	If a reportable spill
TCEQ (San Antonio Office)	210/490-3096	If a reportable spill
Texas Spill Response Center (TCEQ Austin Office)	512/463-7727 800/832-8224	If a reportable spill
Headquarters, MEDCOM	210/221-6441	If a reportable spill
U.S. Army Operation Center	202/697-0218	If a reportable spill
Southwest Regional Office (SWRO)	210/221-6440	If a reportable spill

### **3.2.2 State of Texas Spill Response Center**

The Texas Commission of Environmental Quality (TCEQ) has developed an emergency response center to respond to spills occurring within the state boundaries. The spill response center will be contacted in the event a spill is reportable. The spill response center will, at its discretion, provide technical assistance and consultation, and will assess the health hazard to the population in the local area. A state representative may be dispatched to the scene to assist in containment, cleanup, or evaluation operations. The state representative will be briefed by the IOSC and may make available state spill response equipment and contractor personnel to assist the IOSC. The Environmental Release Hotline or the TCEQ can be reached at 800/832-8224. The local TCEQ Region 13 office in San Antonio can be contacted at 210/490-3096.

### **3.2.3 Regional Response Center**

CLRA and FSH are under the jurisdiction of EPA Region 6, in Dallas, Texas. The regional response center is able to provide additional equipment, personnel, expertise, and access to databases to aid in responding to major spills. The regional response center will be contacted in the event a spill is reportable. The 24-hour hotline number for EPA Region 6 is 866/372-7745.

### **3.2.4 Private Contractors**

Names of reputable contractors can be obtained from the State of Texas Spill Response Center, the San Antonio Metropolitan Health district office, or EPA Region 6 in Dallas, Texas.

### **3.2.5 Chemical Transportation Emergency Center (CHEMTREC)**

CHEMTREC operates a 24-hour hotline that issues warnings and limited guidance when a spill product can be identified by either chemical or trade name. CHEMTREC will also assist in contacting the manufacturer or shipper for additional information. This service should be used whenever adequate spill response information is not available. The telephone number for CHEMTREC is 800/424-9300.

### **3.2.6 Environmental Technical Information System (ETIS)**

ETIS is a computer information system that contains federal and state environmental regulations and directories of federal and state environmental contacts. The system manager is the U.S. Army Construction Engineering Research Laboratory. Additional information about the system and how to gain access may be obtained by calling 904/283-1667.

### **3.2.7 Oil and Hazardous Materials Technical Assistance Data System (OHMTADS)**

OHMTADS is a database that is a computer information retrieval file on various hazardous substances. The database contains chemical, biological, toxicological, and response information on more than 1,000 chemicals that may be accessed by either chemical or trade name. OHMTADS should be considered for both spill response planning and as a source of information during a spill response. BFE provides information describing how to access the OHMTADS through ETIS.

### **3.2.8 Volunteer Civic Organizations**

Volunteer groups may be requested to assist in the cleanup of any affected wildlife. Names and contacts within the various civic organizations can be obtained from the San Antonio Chamber of Commerce at 210/229-2100.

## **4. EQUIPMENT, TRAINING, AND MEDICAL SURVEILLANCE**

Section 4 describes response equipment recommended, required, and available at CLRA and Fort Sam Houston. This includes spill control materials, hazardous materials equipment, heavy equipment, and personal protective equipment. Training and medical surveillance requirements are provided in this section.

### **4.1 SPILL KITS**

Because the AST's are situated near the marina, it is required spill containment booms be obtained and stored near the docks for quick deployment in case of a spill into Canyon Lake.

A list of recommended spill control materials for CLRA is provided as Exhibit 4-1.

### **4.2 PERSONAL PROTECTIVE EQUIPMENT**

Personnel on the IIRT, IRT, and decontamination unit should have access to appropriate protective equipment, as detailed in Exhibit 4-2. This protective equipment should provide the minimum level of protection for initial site entries until the hazards have been further identified and defined by monitoring, sampling, and other reliable methods of analysis. Depending on the results of the initial hazard analysis, the level of protection may be adjusted. The equipment shall be stored at the FSH Fire Department for IIRT use.

### **4.3 SPILL RESPONSE EQUIPMENT**

FSH has a variety of spill response equipment to assist CLRA as detailed in the following exhibits. Exhibit 4-3 is list of spill control materials available at FSH. Exhibit 4-4 is a list of equipment stored at the FSH Fire Department for use by the IIRT. Exhibit 4-5 is a list of equipment unit items available to the IOSC from the Roads and Grounds - Division Directorate of Public Works Business Center (PWBC).



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**EXHIBIT 4-1**  
**RECOMMENDED SPILL CONTROL MATERIALS AND EQUIPMENT FOR SITES**  
**STORING POLS, HAZARDOUS WASTE, OR HAZARDOUS SUBSTANCES**

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- Oil-absorbing or absorbent material (bentonite, Petro-sorb, diatomaceous earth, vermiculite, etc.), as applicable.
  - Neutrasorb acid neutralizer, as applicable.
  - Solusorb solvent absorbent, as appropriate.
  - Safety goggles.
  - Chemical-resistant rubber boots and gloves.
  - Nonsparking shovel, as appropriate.
  - Broom.
  - Fire extinguisher appropriate for specific types of hazardous substances stored or used at site.
  - Waste containers (22-gallon buckets with lids).
-

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## **EXHIBIT 4-2**

### **PERSONAL PROTECTIVE EQUIPMENT FOR INITIAL SITE ENTRY**

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- Positive-pressure (pressure-demand), self-contained breathing apparatus, OSHA/National Institute Of Occupational Safety and Health (NIOSH) approved.
  - Chemical-resistant clothing (overalls and long-sleeved jacket, coveralls, hooded two-piece chemical splash suit, disposable chemical-resistant coveralls).
  - Coveralls (under splash suit).
  - Gloves, outer, chemical-resistant and in compliance with material spilled.
  - Gloves, inner, chemical-resistant and in compliance with material spilled.
  - Boots, outer, chemical-resistant and in compliance with material spilled.
  - Two-way radio communications (intrinsically safe).
  - Hard hat.
  - Self Contained Breathing Apparatus (SCBA).
  - Level A and B personal protective equipment.
  - Portable gas detectors applicable to spilled materials.
-

**EXHIBIT 4-3**  
**SPILL CONTROL MATERIALS AVAILABLE AT FORT SAM HOUSTON**  
**FOR CANYON LAKE**

<b>Item</b>	<b>Quantity</b>	<b>Location</b>
Drums, 55-gallon	16	Building 4195
Drums, 30-gallon	10	Building 4195
Absorbent material, 24-inch square	1 bundle	Building 4226
Sand	300 cubic yards	East of Building 3834
Cedar Shavings	8 cubic yards	Adjacent to Building 3556
Wood Shavings	4 cubic yards	Building 2186

**EXHIBIT 4-4**  
**HAZARDOUS MATERIALS RESPONSE EQUIPMENT**  
**STORED AT FSH FIRE DEPARTMENT**

<b>Item</b>	<b>Quantity</b>
20-foot trailer	1
Absorbent socks (reactive)	1 box
Absorbent socks (nonreactive)	18 each
Absorbent pads	20 boxes
Air and seal bag, 15" x 21"	2 each
Air and seal bag, 24" x 24"	2 each
Chemical resistant boots	30 pair
Disposable coveralls	1 box
Double mats	3 boxes
Emergency blanket, 58" x 90", yellow	1 each
Explosion proof pump	1 each
Gloves, chemical resistant	6 pair
HAZMAT dikes	3 each
HAZMAT pillows	2 each
Level "B" suits	40 each
Level "A" suits	20 each
NOMEX coveralls	12 each
Nonsparking tools	1 kit
Nonsparking shovel	1 each
Patch kit	3 each
Pipe pluggers	1 kit

**EXHIBIT 4-4**  
**HAZARDOUS MATERIALS RESPONSE EQUIPMENT**  
**STORED AT FSH FIRE DEPARTMENT (Cont.)**

<b>Item</b>	<b>Quantity</b>
Plugs, rubber	7 each
Plugs, wooden	1 kit
Pool, decon	6 each
Portable gas detector	8 each
Repair putty	2 boxes
SCBA	24 each
Shower, decon	2 each
Skimmer mats	3 boxes
Skimmer pulp	6 boxes
Skimmer booms	7 each
Spillstopper	1 box
Truck	1 each

**EXHIBIT 4-5**  
**HEAVY EQUIPMENT AVAILABLE FOR SPILL RESPONSE**

Type	Quantity	Capability
Dump trucks	3	Haul material from stockpile to emergency location. Dump and spread material at the emergency site. Haul rubble, debris, and contaminated material from the emergency location to a specified location.
Loaders	2	Move excavated material from ground to dump truck.
Backhoes	2	Cut ditches and excavate pits. Load material for transportation to and from site. Load rubble and debris for removal. Excavate buried utilities.
Water truck, 1,500 gal. with auxiliary pump	1	Refill fire trucks. Deliver water to support field mixing of concrete.
Tractor-Truck, 10 ton	1	Haul equipment and material.
Grader	1	Scrape and stockpile material. Cut shallow ditches.
Lowbed tractor-trailer, 40 ton	1	Haul equipment.
Rolls of absorbent pad	2	Absorb spilled material.
Light and heavy dozer	1 each	Cut shallow ditches and/or shallow pits. Raise berms. Stockpile contaminated material for removal. Augment brush cutting.
Heavy dozer	2	Raise berms.
NOTE: Equipment is located at PWBC Roads and Grounds, building 3882.		

#### **4.4 TRAINING**

DSEF will establish and administer a training program for members of the IRT, as required by OSHA 29 CFR 1910.120. This training should encompass the proper operation and maintenance of equipment to prevent the discharges of oil and the applicable pollution control laws, rules, and regulations. Spill prevention procedures described in the SPCCP and emergency procedures described in Section 5 of this ISCP should also be discussed.

Documentation of the extent and frequency of ISCP training for the IRT will be maintained by DSEF. The Fire Department should maintain the training records of the IIRT members.

#### **4.5 MEDICAL SURVEILLANCE**

The Preventive Medicine Service at BAMC should conduct a periodic health monitoring program for military and civilian personnel, including project managers employed in or otherwise responsible for carrying out duties at oil and hazardous substance spill sites. Medical examinations should comply, in content and frequency with 29 CFR 1910.120.

The Fire Department and DSEF at FSH should ensure that members of the IIRT receive health monitoring required for spill response activities. Medical records for IRT and IIRT members should be maintained by the Preventive Medical Service at BAMC.

#### **4.6 SPILL RESPONSE EXERCISES**

Spill response exercises should be conducted annually and documented on Exhibit 4-6 and maintained in Appendix E.

**EXHIBIT 4-6**  
**SPILL RESPONSE EXERCISE FORM**  
**(Complete for Each Exercise and File in Appendix E)**

Date of Spill Exercise: \_\_\_\_\_

**RESULTS OF SPILL SIMULATION:**

Location and description of spill simulation: \_\_\_\_\_

\_\_\_\_\_

Description of spill response:

Installation Point of Contact: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Reporter's Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Position: \_\_\_\_\_

Installation: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

MACOM: \_\_\_\_\_

Date Reported: \_\_\_\_\_ Time Reported: \_\_\_\_\_

Source and/or Cause of Incident: \_\_\_\_\_

Date of Incident: \_\_\_\_\_ Time of Incident: \_\_\_\_\_

Incident Address/Location: \_\_\_\_\_

Nearest City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

County: \_\_\_\_\_

Distance from City: \_\_\_\_\_

Direction from City: \_\_\_\_\_

Section: \_\_\_\_\_ Range: \_\_\_\_\_

Facility Capacity: \_\_\_\_\_

Tank Capacity: \_\_\_\_\_

Container Type: \_\_\_\_\_

Material: \_\_\_\_\_

Released Quantity: \_\_\_\_\_ Unit of Measure: \_\_\_\_\_

Quantity Released in Water: \_\_\_\_\_

Reportable Quantity: Federal: \_\_\_\_\_ State: \_\_\_\_\_

Action Taken to Correct, Control, or Mitigate Incident: \_\_\_\_\_

Number of Injuries: \_\_\_\_\_

Number Evacuated: \_\_\_\_\_

Estimated Cleanup Costs: \_\_\_\_\_



**EXHIBIT 4-6**  
**SPILL RESPONSE EXERCISE FORM (Cont.)**  
**(Complete for Each Exercise and File in Appendix E)**

Notification: EPA: \_\_\_\_\_ NRC: \_\_\_\_\_  
State: \_\_\_\_\_ Other: \_\_\_\_\_

**PERSONNEL PARTICIPATING IN SPILL EXERCISE**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CRITIQUE OF SPILL RESPONSE ACTION**

Timely response from IRT: \_\_\_\_\_ Response Time: \_\_\_\_\_

Timely mobilization of IIRT/IRT: \_\_\_\_\_ Response Time: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Proper equipment and supplies: \_\_\_\_\_ (as directed by IOSC) \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Deficiencies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By Whom: \_\_\_\_\_  
\_\_\_\_\_

Additional Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Critique performed by: \_\_\_\_\_ Date: \_\_\_\_\_

## **5. EMERGENCY RESPONSE ACTIONS**

Section 5 outlines the emergency response procedures and protocols that should be implemented by Canyon Lake Recreation Area in the event of a spill.

### **5.1 RESPONSE NOTIFICATIONS**

Response notifications are initiated by the first person who observes the spill. This person shall call the Canyon Lake Recreation Area Facility Manager. This person shall also contact the New Braunfels Fire Department if a large spill occurs and it cannot be contained by facility personnel. The New Brunfels Fire Department will serve as the IIRT and is tasked to assess the magnitude and seriousness of the spill. Should additional assistance be required, the Fort Sam Fire Department will be notified. This assessment should be summarized on the IIRT initial spill report, Exhibit 5-1. If the incident involves a potentially reportable-quantity spill, or if the IIRT needs additional assistance to control and cleanup the spill, the IIRT Fire Chief shall call the IOSC. The IOSC is responsible for carrying out the emergency notification procedures and/or activating additional resources.

#### **5.1.1 Emergency Notification Procedures**

If a spill is deemed a "reportable spill" by the IOSC, the IOSC shall notify TCEQ (regional office and spill response center), EPA (regional office and National Response Center), U.S. Army Operation Center, and SWRO within 24 hours. The contact numbers for these regulatory agencies and other local, state, and federal agencies are provided in Exhibit 3-2. Notification may be verbal or written and shall include, at a minimum, information on the initial spill report (Exhibit 5-1). Within 5 days after notification, the location of the spill, including topographic maps and flow diagrams, should be submitted to Headquarters, MEDCOM, the Deputy Chief of Staff Installation Environmental for Facility Management, the Southwest Region Installation Management Office (SWRO), and the U.S. Army Operations Center.

## EXHIBIT 5-1

### SPILL RESPONSE NOTIFICATION FORM

Installation Point of Contact:	
Phone Numbers:	
Reporter's Name:	
Position:	
Phone Number:	
Installation:	
Address:	
City:	
State:	
Zip Code:	
MACOM:	
Date Reported:	
Time Reported:	
Source and/or Cause of Incident:	
Date of Incident:	
Time of Incident:	
Incident Address/Location:	
Nearest City:	
State:	
County:	
Zip Code:	
Distance from City:	
Direction from City:	
Section:	
Range:	
Facility Capacity:	
Tank Capacity:	
Container Type:	
Material:	
Released Quantity:	
Quantity Released in Water:	
Unit of Measure:	
Reportable Quantity:	
Action Taken to Correct, Control, or Mitigate Incident:	
Number of Injuries:	
Number of Evacuated:	
Cleanup Costs:	
Notification:	-Other:
-EPA:	
-State:	
-NRC:	
-SWRO:	

### **5.1.2 Reporting Requirements for AST Releases, Spills, or Overfills**

The following reporting requirements shall be met within 24 hours after the installation becomes aware of the spill.

#### **5.1.2.1 Surface Spills, Overfills, and Belowground Releases**

Headquarters, MEDCOM, the U.S. Army Operations Center, SWRO, and TCEQ shall be notified by DSEF within 24 hours of any of the following conditions:

1. Aboveground releases to land from a AST system in excess of 25 gallons, or less than 25 gallons if cleanup of the releases can not be accomplished within 24 hours.
2. Aboveground releases to surface water that produce a sheen on the water.
3. An aboveground release to air, land, or water of a hazardous substance that exceeds its reportable quantity (see Appendix B), or less than the reportable quantity if cleanup of the release can not be accomplished within 24 hours.
4. Any release of hazardous waste that could threaten human health or the environment outside the facility.

#### **5.1.2.2 Documentation Requirements**

DSEF should assemble information from investigations of the site and the release or from other sources such as USGS maps, state and local agencies, and Natural Resource Conservation Service (NRCS) soil maps to document the release. This information should include, but is not necessarily limited to the following:

- Data on the nature and estimated quantity of the release.
- Data from surface and subsurface soil sampling and analyses.
- Data from groundwater and/or surface water sampling and analyses.
- Data from available sources and/or site investigations regarding surrounding populations, water quality and use, well locations, subsurface soil conditions, climatological conditions, and land usage.

The information collected by DSEF during the course of the investigation should be submitted to the TCEQ according to the schedule established by that agency.

### 5.1.3 Reporting Requirements for Cleanup

Following the completion of the response action, a written report should be prepared by the IOSC and submitted to the applicable regulatory agency within the time frame noted below:

- To EPA Region 6:

Within 60 days of a single 1,000-gallon oil spill or two oil spills in excess of 42 gallons each in a 12 month period (40 CFR 112.4).

- To TCEQ

Within 30 days of the discovery of the discharge or spill of oil or a hazardous substance (30 TAC 327.5).

- To EPA Region 6 and TCEQ:

Within 15 days after the release or spill of hazardous waste (40 CFR 265.56 (j) and 30 TAC 335.115).

Reports to both regulatory agencies should be in narrative format and contain the type of information listed below.

1. Name and address of installation and/or owner.
2. Names and telephone numbers of IOSC.
3. Incident report.
4. Date and time of incident.
5. Time of official spill notification to the national response center and other regional and state officials.
6. Location of incident and the nature of the terrain at the location to include surface and subsurface drainage characteristics and relationships to water bodies (estimated extent of area affected such as miles of stream or acres of lake), including maps, flow diagrams, and topographical maps.
7. Weather conditions and how they affected response action.

8. Cause of incident and failure analysis of the system in which the failure occurred.
9. Type and estimated amount (barrels, gallons, pounds) of pollutant and the official size classification (minor, medium, major).
10. Actual damage and potential threat to human life, to property (private, state, or federal), and to plant or animal life.
11. Corrective action taken to eliminate source of pollution and to remove pollutant.
12. Additional preventive measures taken or contemplated to minimize the possibility of recurrence.
13. Assistance required.
14. Estimated completion date of remedial actions and anticipated effectiveness.
15. Estimated quantity and disposition of spilled material and contaminated soil.
16. Confirmation that emergency response equipment is back in operation before resuming operating activities.
17. Description of any problems encountered during implementation of this plan and an explanation of how the plan was, or will be, modified to prevent recurrence of the spill event.
18. Anticipated or actual reaction by the news media and public to the incident (potential for liability to be specified in the internal Army reports only).
19. Extent of injuries, if any.
20. A copy of the SPCC plan, if appropriate.

## **5.2 CONTAINMENT AND CLEAN-UP**

Cleanup for various spill situations shall involve the following general steps:

- Small spills shall be diked with absorbent material for containment. Once the spill is contained, the absorbent material shall be used to absorb the spill. The absorbent material shall then be placed into special waste containers for disposal.

- Large spills may be contained and pumped into 55-gallon drums and disposed of in accordance with the Installation Hazardous Waste Management Plan. The pump shall be decontaminated before reuse.

Spilled pollutants shall be collected to the maximum extent possible. The cleanup procedures shall be implemented in cooperation with the DSEF hazardous waste manager (HWM).

Absorbent and similar material shall be placed in 55-gallon drums, labeled, prepared for off-site transport, and turned in to the HWM at the FSH 90-day storage facility (Building 4055). Hazardous pollutants shall be collected in polyethylene-lined drums (see 49 CFR 178) or other approved drums under 49 CFR 172.101 or 102, labeled, and turned in to the HWM as outlined in the Installation Hazardous Waste Management Plan. A hazardous waste determination shall also be made in accordance with the Hazardous Waste Management Plan. Commercial chemical products that are "U" or "P" listed wastes (40 CFR 261.33(d)) become hazardous waste when spilled into or on any land or water. The material safety data sheets and/or the chemical hazards response system should be consulted with regards to proper procedures and precautions.

According to the requirements outlined in 40 CFR 265.56(h)(1), the IOSC should ensure that no waste that may be incompatible with a released material is treated, stored, or disposed of in the area where the release occurred until cleanup procedures are completed. Also, before operations at the site resume in the areas where the incident occurred, FSH should notify the EPA regional administrator, TCEQ, and appropriate local authorities that they are in compliance with 40 CFR 265.56(h).

It is mandatory that detection of spills be reported promptly; failure to do so may result in a substantial fine from a regulatory agency. The person or persons discovering a spill of any size should take immediate action, if feasible, to control the spill and should immediately notify the IIRT (Fire Department) as discussed in this plan. After completion of an event that requires the use of emergency equipment, the IOSC should ensure that the equipment used is properly, thoroughly cleaned, decontaminated, and that any residue from the cleaning is properly disposed of. The IOSC is also responsible for ensuring that potentially incompatible wastes are not stored in the area of the spill until cleanup is complete. The IOSC shall provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water of any other material that results

from the release. The EPA regional administrator and appropriate state and local officials shall be notified that these tasks have been accomplished.

### **5.3 ABATEMENT REQUIREMENTS FOR ASTS**

Upon confirmation of an actual release from an AST, the following actions shall be taken as described in the regulations found in 30 TAC 334.71-85 and 30 TAC 350:

1. Report the release to TCEQ within 24 hours.
2. Stop any further release from the AST system.
3. Mitigate fire and safety hazards.
4. Remove and properly dispose of visibly contaminated soil from the excavation zone.
5. Report initial corrective action taken, including a verification of tank repair or closure if appropriate, to the TCEQ within 20 days of confirmation or discovery of the release (30 TAC 334.77(a)).
6. Conduct an investigation to determine the presence of free product, and initiate free product removal, if necessary, as soon as practicable.
7. Within 45 days of a release confirmation from an AST, submit a report to TCEQ that provides information from a site assessment (30 TAC 334.78).

### **5.4 EVACUATION PLAN**

In the event of a major emergency, an established set of procedures shall be followed. The IOSC shall use the internal telephone system to notify key personnel of the nature of the emergency and recommended plan of action. Key personnel shall sound the local fire alarm at their facility to notify personnel of a major emergency. Evacuation of the installation is initiated only by the IOSC. Evacuation of a facility is initiated by the key personnel such as personnel from the fire department.

In the event an evacuation is called for by the IOSC, the following actions shall be taken:

1. Key personnel shall make notification at their facility using the local building fire alarm.



2. No further entry of visitors, contractors, or trucks should be permitted. All nonessential traffic within the post shall cease to allow safe exit of personnel and movement of emergency equipment.
3. All employees shall be accounted for by their immediate supervisors. Supervisors should designate certain roads as the safest exits for their employees and should also choose an alternate exit if the first choice is inaccessible. To assist in this endeavor, the IOSC should use the internal telephone system to call the area supervisor to inform him or her of the nature of the emergency.
4. Personnel, visitors, and contractors shall be asked to immediately leave.
5. During exit, each supervisor is responsible for keeping his or her group together. Immediately after exiting CLRA property, the highest ranking supervisor shall prepare a list of all personnel.
6. No personnel shall remain on or re-enter the site unless specifically authorized by the IOSC. The IOSC assumes responsibility for those personnel within the site perimeter, which shall normally be only emergency response personnel.
7. Upon completion of the employee list by each supervisor, the IOSC shall be notified.
8. The site shall be re-entered only after clearance is given by the IOSC. At his or her direction, a signal or other notification shall be given for re-entry into the area.
9. In all questions of accountability, immediate supervisors should be held responsible for those persons reporting to them. Visitors are the responsibility of those persons administering the individual contractors. Truck drivers are the responsibility of the area supervisor where the trucks are loading or unloading.

Drills are held to practice the implementation of all of the above procedures as part of the general training effort. Evacuation of individual buildings should be rehearsed in annual fire drills. The evacuation route for a specific facility should be strategically posted throughout the respective facility.

## FACILITY 312-WATER PLANT

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### Introduction

The Water Plant provides drinking water for the facilities and campgrounds at Canyon Lake Recreation Area.

### Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 312	
Water Plant	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Chlorine (150 lb cylinders)	10 lbs
<b>Probable spill route:</b> Review appropriate MSDS for safety precautions	
<b>Existing spill prevention provisions:</b> Chlorine is kept within locked building and stabilized.	
<b>Recommended spill prevention provisions:</b> Provide spill kit. Valves should be checked for leaks on a regular basis and the cylinders should be chained and secured. Repair kit should be provided for potential leaks.	
<b>Maximum rate of flow:</b> None	
<b>Contingency action:</b> Stay upwind and use water spray to "knock-down" vapors	
<b>Preventive maintenance:</b> Area is visually inspected on a regular basis.	
<b>Security:</b> Storage building remains locked at all times.	

\* The IOSC must be notified of all incidents involving a spill of any quantity.

\*\* 25 gallons or any instance where a spill causes a sheen on surface water.

## **Notification Procedures/Clean-up Procedures**

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC;
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete and provide the following information:
  - a) Name, office symbol, and phone number of the individual reporting the release;
  - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
  - c) Date, time and location of release;
  - d) Name, stock number, manufacturer, and amount of chemical material spilled;
  - e) Source and cause of release;
  - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
  - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

## **Spill Response Equipment Inventory and Location**

No spill response equipment was observed at this location.

## **Emergency Procedures for Chlorine**

Detecting Chlorine Leaks: To locate the chlorine leak, tie a cloth to the end of a stick, soak the cloth with ammonia-water, and hold close to the suspected area. A white cloud (ammonium chloride gas) will result, if there is any chlorine leakage. The concentration of chlorine may be quantified by using a colorimetric indicator tube and hand pump, i.e., Draeger Tube.

As soon as a leak is detected by the presence of chlorine in the air, immediate steps must be taken to correct the condition. When a chlorine leak occurs, the IIRT personnel equipped with a suitable breathing apparatus should investigate. All other persons should be kept away. If the leak is extensive, special effort must be made to clear personnel from the downwind path of the vapor plume. Chlorine is heavier than air and collects in low areas.

#### Controlling Chlorine Leaks:

**Avoid Water.** Never use water on a chlorine leak. The corrosive action of chlorine and water will always make a leak worse. Never immerse or throw a leaking container into a body of water.

**Equipment and piping leaks:** If a leak occurs in equipment or piping in which chlorine is being used, shut off the supply of chlorine, vent the chlorine off, and replace the defective part.

**Cylinder valve leaks:** Leaks around valve stems usually can be stopped by tightening the packing or gland by turning clockwise. If this does not stop the leak, close the container. If the container valve does not shut off, apply the outlet cap or plug.

**Fire:** In case of a fire, remove the chlorine containers from the fire zone immediately. If the containers cannot be removed from the fire, ensure they are not leaking and apply water to keep the containers cool. **Note:** Water should not be applied to containers that may be leaking. Keep all authorized personnel at a safe distance.

**Buddy System:** Under no circumstances should an individual enter a chlorine room alone, where a leaking cylinder is known to be present. It is advised that there should be a minimum of two personnel working on a leaking cylinder.

#### Cryogenic Properties

Liquefies at -35°C and room pressure. Freezing point is -101°C. Readily liquefied by pressure applied at room temperature. Density (as a liquid) 13.0lb/gal. Contact with unconfined liquid can cause frostbite by evaporative cooling. **Note:** Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

## **Evacuation Procedures**

If a spill/leak could potentially endanger the health of personnel in the vicinity of a spill/leak, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill/leak, shop personnel will assemble with their supervisor for roll call and further instructions.

# WASTEWATER TREATMENT PLANT

## Introduction

The Wastewater Treatment Plant treats non-stormwater discharge as regulated by the TCEQ Multi-Sector Permit.

## Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY	
Wastewater Treatment Plant	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Chlorine (150 lb cylinders)	10 lbs
<b>Safety precaution:</b> Review appropriate MSDS for safety precautions.	
<b>Probable spill route:</b> Atmosphere	
<b>Existing spill prevention provisions:</b> Stored inside building	
<b>Recommended spill prevention provisions:</b> Provide spill kit. Valves should be checked for leaks on a regular basis and the cylinders should be chained and secured. Repair kit should be provided for potential leaks.	
<b>Contingency action:</b> Stay upwind and use water spray to "knock down" vapors.	
<b>Preventive maintenance:</b> Area is visually inspected on a regular basis as a result of round-the-clock manned rotation.	
<b>Security:</b> Storage building remains locked at all times.	

\* The IOSC must be notified of all incidents involving a spill of any quantity.

\*\* 25 gallons or any instance where a spill causes a sheen on surface water.

## **Notification Procedures/Clean-up Procedures**

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete and provide the following information:
  - a) Name, office symbol, and phone number of the individual reporting the release;
  - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
  - c) Date, time and location of release;
  - d) Name, stock number, manufacturer, and amount of chemical material spilled;
  - e) Source and cause of release;
  - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
  - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

## **Spill Response Equipment Inventory and Location**

No spill response equipment was observed at this location.

## **Emergency Procedures for Chlorine**

Detecting Chlorine Leaks: To locate the chlorine leak, tie a cloth to the end of a stick, soak the cloth with ammonia-water, and hold close to the suspected area. A white cloud (ammonium chloride gas) will result, if there is any chlorine leakage. The concentration

of chlorine may be quantified by using a colorimetric indicator tube and hand pump, i.e., Draeger Tube.

As soon as a leak is detected by the presence of chlorine in the air, immediate steps must be taken to correct the condition. When a chlorine leak occurs, the IIRT personnel equipped with a suitable breathing apparatus should investigate. All other persons should be kept away. If the leak is extensive, special effort must be made to clear personnel from the downwind path of the vapor plume. Chlorine is heavier than air and collects in low areas.

#### Controlling Chlorine Leaks:

**Avoid Water.** Never use water on a chlorine leak. The corrosive action of chlorine and water will always make a leak worse. Never immerse or throw a leaking container into a body of water.

**Equipment and piping leaks:** If a leak occurs in equipment or piping in which chlorine is being used, shut off the supply of chlorine, vent the chlorine off, and replace the defective part.

**Cylinder valve leaks:** Leaks around valve stems usually can be stopped by tightening the packing or gland by turning clockwise. If this does not stop the leak, close the container. If the container valve does not shut off, apply the outlet cap or plug.

**Fire:** In case of a fire, remove the chlorine containers from the fire zone immediately. If the containers cannot be removed from the fire, ensure they are not leaking and apply water to keep the containers cool. **Note:** Water should not be applied to containers that may be leaking. Keep all authorized personnel at a safe distance.

**Buddy System:** Under no circumstances should an individual enter a chlorine room alone, where a leaking cylinder is known to be present. It is advised that there should be a minimum of two personnel working on a leaking cylinder.

#### Cryogenic Properties

Liquefies at -35°C and room pressure. Freezing point is -101°C. Readily liquefied by pressure applied at room temperature. Density (as a liquid) 13.0lb/gal. Contact with unconfined liquid can cause frostbite by evaporative cooling. **Note:** Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed



space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

## **Evacuation Procedures**

If a spill/leak could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill/leak, shop personnel will assemble with their supervisor for roll call and further instructions.

# MARINE FUELING STATION

## Introduction

The Marine Fueling Station services all boats that are registered to the Fort Sam Canyon Lake Recreation Area.

## Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY	
Marine Fueling Station	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Gasoline (1,000 and 500 gallon AST's)	**
<b>Safety precautions:</b> Review appropriate MSDS for safety precautions.	
<b>Probable spill route:</b> Spills will be contained within the double-walled secondary containment feature of the AST's. Drainage around tanks will discharge to Canyon Lake.	
<b>Existing spill prevention provisions:</b> Spill kits are available.	
<b>Recommended spill prevention provisions:</b> Conduct routine inspections of marine fueling station. Conduct routine visual inspections of water. Conduct routine air checks of underwater fuel lines. Provide additional spill kits on marina dock.	
<b>Contingency action:</b> Shut off ignition sources. Assure spill is contained using absorbents or building earthen dams. Collect all spilled waste and contaminated material in lined drums.	
<b>Preventive maintenance:</b> Area is visually inspected.	
<b>Security:</b> Area is fenced and locked after hours.	

\* The IOSC must be notified of all incidents involving a spill of any quantity.

\*\* 25 gallons or any instance where a spill causes a sheen on surface water.

## **Notification Procedures/Clean-up Procedures**

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete and provide the following information:
  - a) Name, office symbol, and phone number of the individual reporting the release;
  - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
  - c) Date, time and location of release;
  - d) Name, stock number, manufacturer, and amount of chemical material spilled;
  - e) Source and cause of release;
  - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
  - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

## **Spill Response Equipment Inventory and Location**

One-55 gallon drum containing absorbent material and absorbent “Pig Socks” is located on the marina dock.

## **Evacuation Procedures**

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.